APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,214	03/02/2004	Masanobu Kobayashi	118888	1035

25944	7590	07/14/2005

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EXAMINER
CRUZ, MAGDA

ART UNIT	PAPER NUMBER
2851	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/790,214	KOBAYASHI ET AL.
Office Action Summary	Examiner	Art Unit
	Magda Cruz	2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 March 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-13</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>1-7 and 9-13</u> is/are allowed.

6)☒ Claim(s) <u>8</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/02/04 & 9/20/04</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 8 is rejected under 35 U.S.C. 101 because said claim is just non-functional descriptive material. A computer program needs to be tangibly embodied in a manner so as to be executable before they can realize their functionality; therefore, a computer program listing may be either in machine language which will cause a computer to perform a desired task, such as solving a problem, regulating the flow of work in a computer, or controlling or monitoring events.

Allowable Subject Matter

2.   Claims 1-7 and 9-13 are allowed.

3.   The following is a statement of reasons for the indication of allowable subject matter:

        a.   Regarding claims 1 and 5, the prior art of record neither shows nor suggests an image processing system wherein the distortion correction amount deriving means derives coordinates of the boundary points in a three-dimensional space, based on the optimum focal length to each of the boundary points and horizontal and vertical half-angle-of views in the image projection means.

b.   Regarding claims 6 and 7, the prior art of record neither shows nor suggests a projector wherein the distortion correction amount deriving means derives coordinates of the boundary points in a three-dimensional space, based on the optimum focal length to each of the boundary points and horizontal and vertical half-angle-of views in the image projection means.

c.   Regarding claim 9, the prior art of record neither shows nor suggests an information storage medium which stores a computer-readable program for causing a computer to function as distortion correction means for correcting image signals to adjust the distortion in an image, wherein the distortion correction amount deriving means derives coordinates of the boundary points in a three-dimensional space, based on the optimum focal length to each of the boundary points and horizontal and vertical half-angle-of views in the image projection means.

d.   Regarding claim 10, the prior art of record neither shows nor suggests an image processing method wherein deriving coordinates of the boundary points in a three-dimensional space, are based on the optimum focal length to each of the boundary points and horizontal and vertical half-angle-of views in the image projection means.

Conclusion

2.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bonde et al. (US Patent Number 5,764,311) discloses an image processing apparatus for use with an image projector to allow the image projector to project a magnified image on a screen without a trapezoid distortion or a keystone distortion even when a normal line of the screen is declined to an optical axis of a projector lens of the projector.

Raskar (US Patent Number 6,520,647 B2) teaches an automatic keystone correction for projectors with arbitrary orientation.
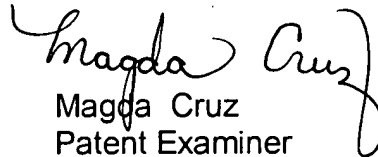
Kawashima et al. (US Patent Number 6,592,228 B1) shows a projector comprising a microcomputer for controlling zoom and focus adjustments utilizing pattern generation and calculation means.

3.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (571) 272-2114. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Magda Cruz
Patent Examiner
Art Unit 2851

June 30, 2005